

A blue-tinted photograph of an industrial facility, likely a refinery or chemical plant, showing a complex network of pipes, walkways, and structural steel. The image is used as a background for the top section of the document.

STRONGBACK® GS-154 EPOXY

PRODUCT DATA SHEET

GS-154 was developed for use in conjunction with the GS-561 epoxy and tape of the StrongBack composite pipe reinforcement system. This is a highly modified 5-minute cure type repair 2-part epoxy compound, formulated for strength and versatility under adverse field conditions. Applied to fill critical voids, reservoirs or as a fairing compound, it is intended for use prior to the overall application of the GS-561 epoxy coating and when a fast cure time is required.

GS-154 is tolerant of wet conditions and can, therefore, be used underwater or to repair wet, leaking pipes. It adheres strongly to steel, copper PVC, gel coat, galvanizing and most other engineering materials. GS-154 can be shipped "Non-Regulated" by USDOT, IATA and IMO.

TECHNICAL INFORMATION

VEHICLE TYPE	Epoxy/Mercaptan
PIGMENTATION	Color/inert/fibrous reinforcement
COLORS	U.S. Navy Haze Gray Shade #26270
FINISH	Semigloss
THINNER	Not required
CLEANER	GS Solvent 009-00000 or standard epoxy thinner
MIXING RATIO	1 .0/1.0 (Volume)
INDUCTION TIME	Not required
POT LIFE	Approx. 5 minutes at 27°C (80°F) or 4 minutes at 35°C (95°F)
FLASH POINT	Over 38°C (100°F) (Closed cup)
SOLIDS BY VOL	100%
SPREADING RATE	Not applicable
DRY TIME (Touch)	Approx. 5 minutes at 27°C (80°F)
DRY TIME (Hard)	Approx. 10 minutes at 27°C (80°F)
STORAGE CONDITIONS	Normal, Freezing OK
SHELF LIFE	12 Months, Minimum
VOC	Essentially zero

*Kevlar is a trademark of E.I DuPont de Nemours Co.

RECOMMENDED USES

STRONGBACK PIPE REINFORCEMENT SYSTEM

To fill critical voids and cracks quickly and prior to application of the load transfer medium, the GS-561 epoxy.

REINFORCES STRUCTURES

Use with glass fiber for extra strength.

REPAIR LEAKS

Bonds to steel, copper, PVC, paint, etc. and resists water, oil, and fuels.

UNDERWATER REPAIRS

Attach, seal or repair materials underwater.

GENERAL REPAIRS

Ideal, all-purpose sealer and adhesive purpose for general use.

APPLICATION NOTES

INITIAL PREPARATION

Make a mental “run-through” of the job and prepare as much as possible beforehand. Only then should you begin to mix the two parts of the GS-154. A pot life of 4–5 minutes gives ample time to take care of most leak situations but time quickly runs out if, for example, tools have to be found or spigots turned off during the job.

SURFACE PREPARATION

Scrape and remove all loose contamination around the immediate repair site. Roughen the repair area using a coarse abrasive paper, or in some cases by file or wire brush, to provide a firm anchor for the repair materials.

MIXING PROCEDURE

GS-154 is supplied in 2-part kits, each part being of equal quantities respectively of epoxy base and curing agent. It is generally advisable to mix no more than 4–8 oz. at a time, as a lot of heat can be generated during the curing action of larger quantities. If larger quantities are required at any one time, ensure the mixed material is spread out to dissipate the heat, rather than concentrated in a single pocket. The two parts are formulated in contrasting colors, white epoxy base and black curing agent, to facilitate complete mixing by yielding a gray mixture. Using different spatulas remove equal quantities of base and curing agent from their cans and place them side by side on a flat sheet of clean plastic, fiberboard, etc. Mixing is easily accomplished within 30 seconds by folding the components into each other using a spatula or piece of wood, until a uniform color has been obtained. The GS-154 is very “forgiving.” If too much epoxy is used, the mixture will cure less quickly but will ultimately achieve excellent properties. Too much curing agent will further reduce reaction times. Do not deliberately deviate from the recommended 1:1 mix ratio as the materials have been optimized for the best results.

APPLICATION

Applicators, such as broad putty knives or plastic straight-edged glue spreaders, work well on most surfaces. Wear latex rubber gloves to prevent contact with skin when working on the repair area. Dip the applicator or gloves into mixed GS-154 and transfer to the surface. Applicators are used to spread out or contour the coating or to “butter” the mixture onto pre-cut fiberglass strips when intending to wrap leaking pipes.

GS-154 is different from traditional coatings as it has a strong tendency to stick securely to underwater surfaces. Contact with diver’s equipment should be minimized by providing protection with plastic bags, inexpensive rainsuits,

etc. The mixed GS-154 should be taken underwater in a can or bucket. Make provision to hang the container on the structure using a hook or magnet, particularly if the visibility is poor.

NOTE

Temperature has a significant influence on the rate of hardening of the GS-154. Generally, expect 10°C (18°F) rise or fall in temperature to halve or double drying times and pot life.

CURING BEFORE SERVICE

GS-154 may be immersed in fresh or salt water immediately after application. It will cure to a hard film within about 14 hours and is suitable for traffic after this time. Allow at least three (3) days at 25°C (77°F) before subjecting to aggressive chemical service from industrial solvents and similar materials.

WE URGE YOU TO READ THE MATERIAL DATA SHEET (MSDS), BEFORE USING AND TO CALL NIXUS INTERNATIONAL AS NECESSARY FOR ADVICE OR INFORMATION BEFORE ANY ACTUAL OR CONTEMPLATED APPLICATION.

SAFETY

Read and understand the Material Safety Data Sheet (MSDS) before use.

WARRANTY DISCLAIMER

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